

Warranty

LIMITED TWO YEAR CONSUMER WARRANTY:

Directed Electronics, Inc. promises to the original purchaser, to replace this product should it prove to be defective in workmanship or material under normal use, for a period of two years from the date of purchase from the dealer as indicated by the date code marking of the product **PROVIDED** the product was installed by an authorized Directed dealer. During this two-year period, there will be no charge for this replacement **PROVIDED** the unit is returned to Directed, shipping pre-paid. If the unit is installed by anyone other than an authorized Directed dealer, the warranty period will be one year from the date of purchase by the dealer as indicated by the date code marking of the product. This warranty is non-transferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose, and does not cover damage to the unit caused by installation or removal of the unit. During this one-year period, there will be no charge for this replacement **PROVIDED** the unit is returned to Directed, shipping pre-paid. This warranty is void if the product has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. Units which are found to be damaged by abuse resulting in thermally damaged voice coils are not covered by this warranty but may be replaced at the absolute/sole discretion of Directed. **ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY ARE EXPRESSLY EXCLUDED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. DIRECTED HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS.** Unit must be returned to Directed, postage pre-paid, with bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number, and address, authorized dealer's name and address, and product description. Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. **IN ORDER FOR THIS WARRANTY TO BE VALID, YOUR UNIT MUST BE SHIPPED WITH PROOF OF INSTALLATION BY AN AUTHORIZED DIRECTED DEALER. ALL UNITS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF DIRECTED DEALER INSTALLATION WILL BE COVERED BY THE LIMITED 1 YEAR PARTS AND LABOR WARRANTY.** Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. **BY PURCHASING THIS PRODUCT, THE CONSUMER AGREES AND CONSENTS THAT ALL DISPUTES BETWEEN THE CONSUMER AND DIRECTED SHALL BE RESOLVED IN ACCORDANCE WITH CALIFORNIA LAWS IN SAN DIEGO COUNTY, CALIFORNIA.**



ORION
HIGH PERFORMANCE CAR AUDIO

subwoofer
owner's manual
P10D2/4

P12D2/4

P15D2/4

SPECIFICATIONS	P10D2	P10D4		P12D2	P12D4	P15D2	P15D4
Nominal Impedance (parallel/series)	1.0 / 4.0ohm	2.0 / 8.0ohm		1.0 / 4.0ohm	2.0 / 8.0ohm	1.0 / 4.0ohm	2.0 / 8.0ohm
RE (DC resistance, parallel/series)	1.89 / 3.77	1.85 / 6.85ohm		1.76 / 3.53ohm	3.38 / 6.77ohm	1.78 / 3.57ohm	3.39 / 6.76ohm
Sensitivity @ 2.84V/1m	86.46dB	84.21dB		84.22dB	85.32dB	87.64dB	88.1dB
Fs (free air resonance)	34.9Hz	38.5Hz		27.2Hz	26.1Hz	29.2Hz	30.46Hz
Qms (mechanical Q)	4.22	4.13		5.99	4.66	3.43	2.38
Qes (electrical Q)	0.54	0.62		0.59	0.48	0.60	0.62
Qts (totalQ)	0.48	0.54		0.54	0.44	0.51	0.49
BL (force factor, parallel/series)	8.86 / 17.72 TM	11.12 / 22.24 TM		7.78 / 15.51 TM	11.20 / 22.32 TM	8.83 / 17.65 TM	11.26 / 23.37 TM
Sd (piston area)	347sq. cm 53.8sq. in.	347sq. cm 53.8sq. in.		496sq. cm 76.9sq. in.	496sq. cm 76.9sq. in.	780sq. cm 121sq. in.	780sq. cm 121sq. in.
Vas (volume acoustic suspension)	17.1 liters 0.6 cu. ft.	15.7 liters 0.56 cu. ft.		50 liters 1.76 cu. ft.	59 liters 2.09 cu. ft.	89.66 liters 3.16 cu. ft.	107.23 liters 3.21 cu. ft.
Xmax (linear excursion)	17.19mm 0.67in.	17.19mm 0.67in.		17.19mm 0.67in.	17.19mm 0.67in.	17.19mm 0.67in.	17.19mm 0.67in.
Power (continuous thermal power handling)	500watts	500watts		500watts	500watts	500watts	500watts
Power (peak thermal power handling)	1000watts	1000watts		1000watts	1000watts	1000watts	1000watts
Outside Diameter	10.44in. 265mm	10.44in. 265mm		12.31in. 312mm	12.31in. 312mm	15.56in. 395mm	15.56in. 395mm
Mounting Diameter	9.187in. 233mm	9.187in. 233mm		11.06in. 281mm	11.06in. 281mm	13.69in. 348mm	13.69in. 348mm
Mounting Depth	1.73in. 44mm	1.73in. 44mm		5.5in. 140mm	5.5in. 140mm	6.75in. 171mm	6.75in. 171mm
Basket Displacement	256.64 cu. in. 4.2 liters	256.64 cu. in. 4.2 liters		361.56 cu. in. 5.9 liters	361.56 cu. in. 5.9 liters	570.07 cu. in. 9.3liters	570.07 cu. in. 9.3liters
Voice Coil Diameter	2.58in. 65.55mm	2.58in. 65.55mm		2.0in. 51mm	2.0in. 51mm	2.0in. 51mm	2.0in. 51mm

ENCLOSURE RECOMMENDATIONS

Sealed Enclosure Volume	0.50 cu. ft. 14.60 liters	0.50 cu. ft. 14.60 liters		1 cu. ft. 35.40 liters	1 cu. ft. 35.40 liters	1.85 cu. ft. 56.64 liters	1.85 cu. ft. 56.64 liters
Vented Enclosure Volume	.95 cu. ft. 28.32 liters	.95 cu. ft. 28.32 liters		1.3 cu. ft. 42.48 liters	2 cu. ft. 42.48 liters	2.75 cu. ft. 84.96 liters	2.63 cu. ft. 84.96 liters
Port Diameter (inside diameter)	3.0in. 76mm	3.0in. 76mm		4.0in. 102mm	4.0in. 102mm	5in. 102mm	5in. 102mm
Port Length	5.67in. 203mm	5.67in. 203mm		13.61in. 254mm	7.44in. 254mm	8in. 304.8mm	6in. 304.8mm
<i>Enclosures include basket and port displacement</i>							

* ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.